

REMARKS

In accordance with the foregoing, claims 1, 7, 13 and 15-18 are amended and new claim 19 is presented. No new matter is being presented, and approval and entry are respectfully requested.

Claim 2, 8 and 14 are cancelled herein without prejudice or disclaimer. Claims 1, 3, 4-7, 9-13 and 15-19 are pending and under consideration. Reconsideration is requested.

Claim Amendments

Claim 1 is amended to include features recited by dependent claim 2 cancelled herein without prejudice or disclaimer. Claims 7 and 13 are similarly amended herein.

Claim 13 is also amended herein to correct an informality and replace the phrase "A computer program, making a computer execute" with the phrase --A computer-readable recording medium that stores a program that, when executed, makes a computer perform--. Dependent claims 15-18 are amended herein to correspond to parent claim 13. No new matter is being presented, and approval and entry are respectfully requested.

Item 3: Rejection of claims 13 and 15-18 under 35 U.S.C. §101

In item 3 of the Office Action, the Examiner rejects claims 13 and 15-18 under 35 U.S.C. §101 asserting the claimed invention is directed to non-statutory subject matter. The Examiner suggests that:

Applicant amend the language of claims 13-18 to recite a computer-readable medium storing a computer program which, when executed, performs the recited steps.

(See, Action at page 3). Claims 13 and 15-18 are amended as suggested by the Examiner. Applicants submit that claims 13 and 15-18 comply with 35 U.S.C. §101 and thus, request withdrawal of the rejection.

Item 5: Rejection of claims 1, 3-4, 6-7, 9-10, 12-13, 15-16 and 18 under 35 U.S.C. 102(b) as being anticipated by Reed (US Pat. App Pub 2002/0164052)

In item 5 of the Office Action, the Examiner rejects claims 1, 3-4, 6-7, 9-10, 12-13, 15-16 and 18 under 35 U.S.C. §102(b) as being anticipated by Reed. The rejection is traversed.

As set forth in MPEP §706.02 entitled Rejection on Prior Art, anticipation requires that the reference must teach every aspect of a claimed invention.

Applicants submit that Reed does not support an anticipatory-type rejection by not describing features recited in each of the present application's independent claims. Independent claim 1, for example, as amended herein, recites an image data processing apparatus including

a) "a dividing unit that divides image data into a plurality of blocks;"

b) "an extracting unit that extracts a feature index of a first color component and a feature index of a second color component in each of the blocks;"

c) "a registration unit that registers information about a correspondence between the feature index of the second color component and a change in the feature index for the first color component;" and

d) "a code embedding unit that embeds a predetermined code into the image data, by changing the feature index of the first color component based on the feature index of the second color component, using the information registered, and embeds one code corresponding to a pair of the blocks, based on a magnitude relationship between feature indices of color components related to the pair of blocks." (Emphasis added). Independent claims 7 and 13 have similar recitations.

That is, according to an embodiment of the present invention a code is embedded into the "image data."

Reed does not teach an apparatus including, for example, "a code embedding unit that embeds a predetermined code into the image data, by changing the feature index of the first color component based on the feature index of the second color component, using the information registered, and embeds one code corresponding to a pair of the blocks, based on a magnitude relationship between feature indices of color components related to the pair of blocks," as recited by claim 1. By contrast, Reed merely teaches:

[M]edia 12 is segmented into a plurality of blocks (FIG. 9). Here a block size can range from a pixel to a group of pixels. We redundantly embed an image or watermark signal in each of (or a subset of) the blocks.

(Emphasis added, See, for example, Abstract and paragraph [0042]).

That is, Reed uses the term "image" as an image which is embedded into media. *Arguendo*, the term "image" disclosed by Reed is the "code" of the present invention. Thus, Reed teaches:

[B]lack channel image 10' includes a set of black pixel values (e.g., grayscale values) 10'. A location in the media 12 is selected to place the black channel image (step 32). The dashed circle 13 in FIG. 2 represents this selected location. . . set of black channel image 10' values is applied to the black channel pixels in the selected location of media 12--effectively modifying media 12 (step 34). . . if an image 10' pixel includes a gray-scale value of 3, this gray-scale value is applied to a corresponding pixel in the selected media 12 location to raise that corresponding pixel value by 3. . . alternative implementation, instead of adjusting the corresponding pixel in the selected media 12 location by the gray-scale value, we replace that corresponding pixel value with the black image 10' gray-scale value. . . another implementation, the corresponding media 12 pixel is modified to achieve the gray-scale value of the image 10' pixel. . . black channel image 10' is inverted to produce a set of signal tweaks (step 36). For example, if a

black channel pixel is tweaked by a grayscale value of say 24, then a corresponding, inverted CMY tweak value is -24.

(See, for example, paragraphs [0029] -[0030]).

That is, Reed merely teaches extracting the color components of the image which is to be embedded into media and does not disclose an apparatus including "an extracting unit that extracts a feature index of a first color component and a feature index of a second color component in each of the blocks" of the image data which the code is embedded into, as recited by claim 1, for example.

Further, Reed does not teach an apparatus including, for example, "a code embedding unit that embeds a predetermined code into the image data, by changing the feature index of the first color component based on the feature index of the second color component, using the information registered, and embeds one code corresponding to a pair of the blocks, based on a magnitude relationship between feature indices of color components related to the pair of blocks," as recited by claim 1.

As discussed above, Reed merely teaches embedding an image signal in each of the blocks (See, for example, paragraph [0042], lines 1-50).

Dependent claims 3-4, 6, 9-10, 12, 15-16 and 18 (depending from claims 1, 7 and 13, respectively) recite patentably distinguishing features of their own, and further, are at least patentably distinguishing due to their dependencies from independent claims 1, 7, and 13.

Summary

Since the features recited by each of independent claims 1, 7, and 13 (and respective dependent claims 3-4, 6, 9-10, 12, 15-16 and 18) are not taught by the art relied on by the Examiner, the rejection should be withdrawn and claims 1, 3-4, 6-7, 9-10, 12-13, 15-16 and 18 allowed.

Item 7: Rejection of claims 5, 11 and 17 under 35 U.S.C. §103(a) as being unpatentable over Reed and DeProspero (U.S. Pat. App Pub 2002/0040648)

In item 7 of the Office Action, the Examiner rejects dependent claims 5, 11 and 17 under 35 U.S.C. §103(a) as being unpatentable over Reed and DeProspero. The rejection is traversed.

Applicants submit independent claims 1, 7 and 13 patentably distinguish over Reed for at least the reasons stated above. Applicant submits that nothing in DeProspero's disclosure cited by the Examiner, or elsewhere, alone or in combination with Reed overcomes the deficiencies in support of an establishment of *prima facie* obviousness in overcoming features recited by independent claims 1, 7, and 13, for example.

Thus, dependent claims 5, 11, and 17 including at least features of respective parent claims 1, 7, and 13 also patentably distinguish over a combination of Reed and DeProspero.

Summary

Since features recited by dependent claims 5, 11, and 17 are not taught by the cited art and *prima facie* obviousness is not established, the rejections should be withdrawn and claims 5, 11, and 17 allowed.

New Claim 19

New claim 19 is presented to recite features in an alternative fashion. Dependent claim 19 recites an apparatus including "a code embedding unit that embeds a predetermined code into image data by changing a feature index of a first color component of a block, based on a feature index of a second color component of the block, and embeds a code corresponding to a pair of blocks, based on a magnitude relationship between feature indices of color components related to the pair of blocks."

No new matter is presented and, accordingly, approval and entry are respectfully requested. These features of claim 19 patentably distinguish over the cited art, and they are submitted to be allowable for the recitations therein

Conclusion

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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April 2, 2008

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